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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:
KENJI SUZUKI, ET AL.	: EXAMINER: BERMAN, S. W.
SERIAL NO: 10/531,990	:
FILED: APRIL 20, 2005	: GROUP ART UNIT: 1711
FOR: POLYOLEFIN-BASED RESIN COMPOSITION AND USE THEREOF	:

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I, Kenji Suzuki, declare and state as follows:

1. I am a named coinventor herein.

2. I have read the Office Action mailed August 23, 2007, in the above-identified application.

3. In the present invention, the molded article is obtained by molding a polyolefin-based resin composition into a desired shape and thereafter exposing the same to an active energy ray to carry out a crosslinking reaction, where the polyolefin-based resin composition contains an addition polymerization-based block copolymer (I) and a polyolefin-based resin (II). In other words, the crosslinking is carried out after molding.

4. The following Comparative Experiment, which was conducted under my supervision and/or control, was conducted to show the noticeable effects of the present invention obtained upon carrying out the crosslinking reaction after molding. The Comparative Experiment was repeated in the same manner as described in the specification

of the above-identified application for Example 1 to thereby give a resin sheet, except that, instead of the addition polymerization-based block copolymer (I)-1, an electron-beamed, crosslinked product thereof, where the product is obtained by irradiating the block copolymer (1)-1 with an electron beam at a voltage of 2 MeV and at a dose of 200kGy, was used.

5. Table 1' shows the evaluation results of the Comparative Experiment, next to the data for Example 1 from Table 1 of the specification of the above-identified application.

Table 1'

	Example 1	Comparative Experiment
(I) Block copolymer		
(I)-1	20	
Electron-beamed, crosslinked production of (I)-1		20
(II) Polyolefin resin		
PE1	80	80
Irganox 1010	0.1	0.1
Electron beam dose (kGy)	200	
Hardness (Type D)	31	39
Tensile strength at break (23°C, MPa)	25	20
Elongation at break (23°C, %)	530	450
Residual tensile strength at break (23°C, %) Test condition: 120°C, 96 hr, leaving	104	Melted
Residual elongation at break (23°C, %) Test condition: 120°C, 96 hr, leaving	107	Melted
Tensile strength at break (80°C, MPa)	6.3	5.0
Elongation at break (80°C, %)	480	450
Heat deformation (%) Test condition: 150°C, 30min., 1 kg load, heating	20	Melted
Deformation temperature (°C)	238	90
Toluene extraction (%)	0	0

6. As is apparent from Table 1', the resin sheet of Example 1 (where crosslinking is carried out after molding) is superior to that of the Comparative Experiment (where crosslinking is carried out before molding) in respect to heat resistances such as residual tensile strength at break, residual elongation at break, heat deformation, and deformation temperature. For example, the resin sheet of the Comparative Experiment was melted under the condition of 120 °C and 150 °C for the residual tensile strength or elongation at break and

the heat deformation. To the contrary, that of Example 1 was not melted under the same condition. The deformation temperature of the resin sheet of the former was 90 °C, but the deformation temperature of the latter was 238 °C.

7. Furthermore, the resin sheet of Example 1 has a lower hardness and a better flexibility than the Comparative Example.

8. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

9. Further declarant saith not.

Kenji Sugaki
Signature

December 20, 2007
Date

Customer Number
22850
Tel. (703) 413-3000
Fax. (703) 413-2220
(OSMMN 05/06)